WHAT IS CLAIMED IS:

1. A method of classifying states of an object in an object-oriented program by using a computer, comprising:

designating a to-be-determined object that is to be determined, and a state of the to-be-determined object;

creating a method set comprising, as elements, methods called from the designated state of the to-be-determined object;

using, as a to-be-determined state, the designated state of the to-be-determined object or another state obtained by calling methods from the designated state, and executing a program for calling methods included in the method set from the to-be-determined state;

recording an execution result in a case of calling the methods; and

creating a pseudo-state by merging a method group that is the elements of the method set, and the execution result in the case of calling each method of the method group, in association with the to-be-determined state of the to-be-determined object.

2. The object state classification method according to claim 1, further comprising:

comparing, when a plurality of the pseudo-states are created in association with a plurality of the to-be-determined states, the plurality of the

pseudo-states and classifying the to-be-determined states into groups each having the same pseudo-state.

3. The object state classification method according to claim 1, wherein the step of creating the method set includes a method set select step of selecting, when a plurality of the method sets are created, a method set to be used.

4. The object state classification method according to claim 1, wherein the step of creating the method set includes:

a first method set creation step of creating a method set for a state search, which comprises, as elements, methods called from the designated state of the to-be-determined object; and

a second method set creation step of creating a method set for state judgment, which comprises, as elements, methods called from a state obtained by calling methods included in the method set for state search,

the step of executing includes:

a first execution step of using, as a pre-execution state, the designated state of the to-be-determined object or another state obtained by calling methods from the designated state, and executing a program for calling methods included in the method set for state search from the pre-execution state; and

a second execution step of executing a program for calling methods included in the method set for state judgment from a state obtained by calling methods included in the method set for state search, and

the step of creating the pseudo-state includes:

a step of using, as the to-be-determined state, a state obtained by calling methods included in the method set for state search, and creating a pseudo-state by merging a method group that is the elements of the method set for state judgment, and an execution result in a case of calling each method of the method group for state judgment, in association with the to-be-determined state.

5. The object state classification method according to claim 4, wherein the step of classifying includes a step of registering, when the pseudo-state obtained in association with the to-be-determined state is not registered, the pseudo-state, and

the step of executing includes a step of repeating, when the pseudo-state is newly registered, the first and second execution steps, using as the pre-execution state the to-be-determined state, in association with which the pseudo-state is obtained.

6. A method of classifying states of a plurality of objects having an inheritance relationship in an object-oriented program by using a computer, comprising:

detecting pseudo-states of objects of a parent class and a child class in the plurality of objects, by using the method of claim 4; and

comparing the pseudo-states obtained in association with the objects of the parent class and child class, and detecting a difference therebetween, and

the step of detecting the pseudo-states including:

a parent class pseudo-state detection step of detecting pseudo-states of the object of the parent class, using method sets for the parent class as the method sets for state search and state judgment; and

a child class pseudo-state detection step of detecting pseudo-states of the object of the child class, using a method set different from the method set for the parent class as the method set for state search, and using the same method set as the method set for the parent class as the method set for state judgment.

7. A system for classifying states of an object in an object-oriented program by using a computer, comprising:

a to-be-determined object designation section that designates a to-be-determined object that is to be determined, and a state of the to-be-determined object;

a method set creation section that creates a method set comprising, as elements, methods called

from the designated state of the to-be-determined object;

a program execution section that uses, as a to-be-determined state, the designated state of the to-be-determined object or another state obtained by calling methods from the designated state, and executes a program for calling methods included in the method set from the to-be-determined state;

an execution result record section that records an execution result in a case of calling the methods; and

a pseudo-state creation section that creates a pseudo-state by merging a method group that is the elements of the method set, and the execution result in the case of calling each method of the method group, in association with the to-be-determined state of the to-be-determined object.

8. The object state classification system according to claim 7, wherein the method set creation section includes:

a first method set creation section that creates a method set for a state search, which comprises, as elements, methods called from the designated state of the to-be-determined object; and

a second method set creation section that creates a method set for state judgment, which comprises, as elements, methods called from a state obtained by

calling methods included in the method set for state search,

the program execution section uses, as a pre-execution state, the designated state of the to-be-determined object or another state obtained by calling methods from the designated state, executes a program for calling methods included in the method set for state search from the pre-execution state, and then executes a program for calling methods included in the method set for state judgment from a state obtained by calling the methods included in the method set for state search; and

the pseudo-state creation section uses, as the to-be-determined state, a state obtained by calling methods included in the method set for state search, and creates a pseudo-state by merging a method group that is the elements of the method set for state judgment, and an execution result in a case of calling each method of the method group for state judgment, in association with the to-be-determined state.

9. A system for classifying states of a plurality of objects having an inheritance relationship in an object-oriented program by using a computer, comprising:

a pseudo-state detection section that detects pseudo-states of objects of a parent class and a child class in the plurality of objects, by using the system

of claim 8; and

a pseudo-state difference detection section that compares the pseudo-states obtained in association with the objects of the parent class and child class, and detects a difference therebetween,

the pseudo-state detection section detecting pseudo-states of the object of the parent class, using method sets for the parent class as the method sets for state search and state judgment, and detecting pseudo-states of the object of the child class, using a method set different from the method set for the parent class as the method set for state search, and using the same method set as the method set for the parent class as the method set for state judgment.

10. An information recording medium storing a program for classifying states of an object in an object-oriented program by using a computer, the program comprising:

a to-be-determined object designation function that designates a to-be-determined object that is to be determined, and a state of the to-be-determined object;

a method set creation function that creates a method set comprising, as elements, methods called from the designated state of the to-be-determined object;

a program execution function that uses, as a to-be-determined state, the designated state of the

to-be-determined object or another state obtained by calling methods from the designated state, and executes a program for calling methods included in the method set from the to-be-determined state;

an execution result record function that records an execution result in a case of calling the methods; and

a pseudo-state creation function that creates a pseudo-state by merging a method group that is the elements of the method set, and the execution result in the case of calling each method of the method group, in association with the to-be-determined state of the to-be-determined object.

11. The information recording medium according to claim 10, wherein the method set creation function includes:

a first method set creation function that creates a method set for a state search, which comprises, as elements, methods called from the designated state of the to-be-determined object; and

a second method set creation function that creates a method set for state judgment, which comprises, as elements, methods called from a state obtained by calling methods included in the method set for state search,

the program execution function includes:

a first execution function that uses, as

a pre-execution state, the designated state of the to-be-determined object or another state obtained by calling methods from the designated state, and executes a program for calling methods included in the method set for state search from the pre-execution state; and

a second execution function that executes a program for calling methods included in the method set for state judgment from a state obtained by calling the methods included in the method set for state search, and

the pseudo-state creation function uses, as the to-be-determined state, a state obtained by calling methods included in the method set for state search, and creates a pseudo-state by merging a method group that is the elements of the method set for state judgment, and an execution result in a case of calling each method of the method group for state judgment, in association with the to-be-determined state.

12. An information recording medium storing a program for classifying states of a plurality of objects having an inheritance relationship in an object-oriented program by using a computer, the program comprising:

a pseudo-state detection function that causes the computer to detect pseudo-states of objects of a parent class and a child class in the plurality of objects, by using the program of claim 11; and

a pseudo-state difference detection function that causes the computer to compare the pseudo-states obtained in association with the objects of the parent class and child class, and to detect a difference therebetween,

the pseudo-state detection function including:

a parent class pseudo-state detection function that detects pseudo-states of the object of the parent class, using method sets for the parent class as the method sets for state search and state judgment; and

a child class pseudo-state detection function that detects pseudo-states of the object of the child class, using a method set different from the method set for the parent class as the method set for state search, and using the same method set as the method set for the parent class as the method set for state judgment.